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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,099

11/14/2006

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EXAMINER

GONZALEZ, PAOLO

ART UNIT

PAPER NUMBER

4136

MAIL DATE

DELIVERY MODE

04/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,099	Applicant(s) RUGA ET AL.	
	Examiner PAOLO GONZALEZ	Art Unit 4136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/14/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 2, 3 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/14/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed 05/31/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Even though, the information disclosure statement fails to comply with 37 CFR 1.98(a)(2), the examiner considered the IDS. Thus, the applicant is required to provide a legible copy of each cited foreign patent document.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities: The layout of the specification of the application is recommended to have the arrangement as described above. Moreover, on page 1, line 34 where it says "(usually max. **0.6 mm**)" needs to be change to "(usually max. **0.6 mm**)" since in the United States is customary to use a period "." instead of a comma ",".

Appropriate correction is required.

Claim Objections

4. Claim 7 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 4, 5, and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Orlandi (US Pat. 5,433,378) in view of Osvaldo (US Pat. 6,089,462).

Orlandi teaches a thermostatic mixing valve that have controls (see Orlandi column 3, lines 67 – column 4 lines 1—11; column 4, lines 28 – 33; column 4, lines 54 - 59) for adjusting the flow rate, through a valve group with overlapping ceramic disks (21, 22) (see Orlandi Figure 1, 2, and 3; column 1, lines 35-41; column 5, lines 2—7 and lines 12—13), and the temperature through a thermostatic device (see Orlandi column 1, lines 22 – 31; column 1 lines 44 – 50; column 1 line 67 – column lines 1 – 8) , the latter including a thermostatic member (30), a slider (23) and a resilient contrast means (43) which are mobile within a mixing chamber for hot and cold water (see Orlandi Figure 1, 2, 3; column 3, lines 42 – 57; column 4, lines 22 – 33) , characterized in that the access path of the hot water to the mixing chamber is completely formed within a

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bottom base (13) and said ceramic disks (21, 22), and said slider (23) sealingly slides in a central seat (21b) of the upper disk (22) (see Orlandi Figure 1, 2, 3 and 4; column 3 lines 8 – 41). In addition, Orlandi also teaches a thermostatic mixing valve characterized in that the coupling for the temperature control (35) is formed at the top of the valve, above a coupling surface for a fixed reference member formed on the outside of a housing body (38) (see Orlandi Figure 2; column 3, lines 67 – column 4, lines 1 – 3; column 5, line 7 – 11). Furthermore, Orlandi teaches a thermostatic mixing valve, characterized in that the thermostatic member (30) is provided with an insert (32) which is slidably introduced into a central opening of the transmission member (24) (see Orlandi Figure 2).

Orlandi does not teach a thermostatic mixing valve characterized in that the coupling for the temperature control is formed at the top of the valve above the coupling for the flow rate control. Neither, it teaches a thermostatic mixing valve according characterized in that the flow rate control is inserted on the outside of the housing body, axially locked thereon by a retaining ring, and externally engages a transmission member by passing through suitable slots formed in said body, said transmission member engaging in turn the upper disk.

Osvaldo teaches a thermostatic mixing valve provided with couplings for separate controls for adjusting the flow rate and temperature (see Osvaldo abstract; Figure 1, 2, and 3; column 2, lines 48 – 59). Moreover, Osvaldo does teach a thermostatic mixing valve characterized in that the coupling for the temperature control is formed at the top of the valve above the coupling for the flow rate control (see

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Osvaldo Figure 1, and 3; column 3, lines 23- 30). In addition, Osvaldo teaches a thermostatic mixing valve according characterized in that the flow rate control is inserted on the outside of the housing body, axially locked thereon by a retaining ring, and externally engages a transmission member by passing through suitable slots formed in said body, said transmission member engaging in turn the upper disk (see Osvaldo Figure 1, 3, 6 – 7C; column 2, lines 56 – 59; column 3, lines 23- 30; column 4, lines 53 – column 5, lines 1 - 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the thermostatic mixing valve described by Osvaldo with the teachings of the thermostatic mixing valve described by Orlandi since, Osvaldo thermostatic mixing valve has been arranged differently in order to have couplings for separate controls for adjusting the flow rate and temperature (see Osvaldo column 5, lines 11 – 36). Moreover, it is obvious to have the thermostatic mixing valve disclosed by Orlandi arranged in such a way to have the coupling for the temperature control on top of the coupling for the flow rate control of such valve.

Regarding claims 4 and 5, since Orlandi discloses that the regulation of the flow rate and temperature may be carried out in any other appropriate way within the knowledge of technicians working on the field, it would have been obvious that the coupling for the temperature control could be formed at the top of the valve above the coupling for the flow rate control. Also, it would be obvious to have flow rate control inserted on the outside of the housing body, axially locked thereon by a retaining ring, and externally engages a transmission member by passing through suitable slots

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formed in said body, said transmission member engaging in turn the upper disk as disclosed by Osvaldo.

Regarding claim 6, Orlandi teaches a thermostatic mixing valve, characterized in that the thermostatic member (30) is provided with an insert (32) which is slidably introduced into a central opening of the transmission member (24) (see Orlandi Figures 2)

Allowable Subject Matter

6. Claims 2 and 3/2 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Knapp U.S. Patent 6,517,006 B1 discloses two flow control ceramic discs for a thermostatic valve having ports to adjust water flow from a closed to a full open position. Ceramic disc has contoured opening that has a wide section and a narrow section that provide regulation with significant different capacities of flow rates.

Chamot et al EP1235129A1 discloses a mixing valve for a faucet having a lower disc and an upper disc to regulate the flow. Each disc having hot and cold water passages and mixed water passage. The upper disc cold water passage opens to the periphery of the disc and has a side passage for the cold water to allow it to flow radially outwardly. The upper face of the upper disc forms a seat for a hot water regulating slide.

Olandi EP0611260A1 discloses a hot and cold water mixer valve with thermostatic regulation, which comprises a valve body enclosing a ceramic disc valve assembly and a thermosensitive bulb arranged axially, centered and contiguous with the valve assembly, susceptible of axial dilatation and free from any control functions for the opening/closing of the valve.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAOLO GONZALEZ whose telephone number is (571)270-1490. The examiner can normally be reached on Monday - Friday, 9:30am-3:00pm, alternating Fridays off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin M. Lateef can be reached on (571)270-1493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. G./

Examiner, Art Unit 4136

04/01/2009

/Marvin M. Lateef/

Supervisory Patent Examiner, Art Unit 4136